

Delaware's Trawl Survey Program





Sketch of a bottom trawl



Emptying the 30-foot net after a tow.



A tagged juvenile flounder from the 17-foot trawl survey

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The Division of Fish and Wildlife monitors the status of a wide variety of marine finfish and shellfish populations in the Delaware Estuary and Inland Bays through its bottom trawl survey program. The Division's trawl surveys are among the longest running state surveys on the East Coast. The 17-foot trawl has been consistently conducted since 1980 and is used to monitor juvenile fish and crab abundance. The 30-foot trawl survey was initiated in 1966 and is primarily used to monitor sub-adult and adult fish abundance.

In conducting the surveys, a trawl net is towed for a specified time at a number of fixed sites. Upon completion of a tow, the net is hauled up and emptied on the deck. The sample is sorted by species, measured and weighed. Scale or otolith (ear bone) samples are removed from a portion of the summer flounder, weakfish and striped bass catches for age determination.

Over 160 species of marine finfish and invertebrates have been recorded in survey catches since their inception. Survey catches are typically dominated by species such as bay anchovy, hogchokers, weakfish, Atlantic croaker and spot.

Data from both surveys are used to generate indices of relative abundance so that fisheries managers can monitor population trends. The indices are used, in conjunction with data from other state and federal surveys, in the development of coastwide stock assessments and fishery management plans. In addition, Delaware's trawl data are used to establish time of year restrictions on such things as beach replenishment and dredging in an effort to minimize the potential impacts of these activities on Delaware's marine resources. The surveys also serve as important platforms for collecting specimens for genetics research, contaminants studies, tagging studies, age and growth investigations, etc. Both surveys are an indispensable part of Delaware's marine fisheries program.

